Title

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State Hygienic Lab- Ankeny

Part I: Overview of Business

Since 1904, the State Hygienic Laboratory has been at the forefront of public healthi ssues in IOwa. As the state's public health and environmental laboratory, the Hygienic Laboratory serves all of the 99 counties through disease detection, environmental monitoring, and newborn maternal screening.
http://www.shl.uiowa.edu/

Part II: Job Specifics

In the Ankeny laboratory, The testing related to my essential question/problem was testing done in limnology, microbiology, and nutrient demand. For example, the limnology staff collect samples from more than 200 different waterways throughout Iowa. Analyses vary but can include bacteria, nutrients, heavy metals, pesticides, biological organisms and physical measurements. Monitoring and analysis results provide insight into water quality. The program also generates data that can aid state regulators who make decisions about the protection of Iowa's vital natural resources.

Part III: Essential Question:

What patterns can you observe from testing water quality? How does water quality vary in different water samples?
Patterns
ESS2.C: The Roles of Water in Earth's Surfaces Processes
Stability Change
ESS2-1: Things may change slowly or raidly

Part IV: Background

- Water is found in the ocean, rivers, lakes and ponds.
- Water exists in solid ice and liquis form.
- Scientists look for patterns and order when making observations about the world.
- What is a watershed/local waterways (Walnut Creek Watershed).
- Water testing : lab safety procedures.
- Limnology /IOWATER staff will visit the classroom to introduce chemical water testing.

Link: Map of Walnut Creek Watershed

Part V: Business Solution

How would or did the business solve the problem? The State Hygienic Laboratory collects samples of over 200 waterways in Iowa, Water samples are collected on a monthly or bi-weekly schedule. In the lab, scientists test and analyze data and reposrt results from the lab to state regulators.

Part VI: Student Solutions

Students will be able to analyze the data throughout the school year. Water samples will be collected monthly, students will record and graph the results each month. This will give students the opportunity to make observations, and form conclusions based on their reaseach. Students will make connections between the weather, season, habitat of testing sites.